

Claims

1-18 Canceled

19. (New) A method for triggering a load element using an electronic switching element (S1) in a load circuit, the method comprising:
- controlling a voltage (U_a) on the load element with a maximum specified increase; and
- recording, during a switching procedure, an effectively occurring power loss or a related value (U_a/U_{bat}), wherein the effective increase ($I_1+I_2+I_3$) is controlled dependently on the recorded power loss.
20. (New) A method according to claim 19, wherein during the switching procedure, an effective ratio between the voltage on the load element and the supply voltage (U_a/U_{bat}) is recorded, assigned increase values are specified at least for specific value ranges of the ratio (U_a/U_{bat}), and the increase is adapted accordingly during the switching procedure.
21. (New) A method according to claim 19, wherein the triggering is achieved in such a manner that during the phase (t_4-t_4) of high power loss, the voltage is adapted with the maximum specified increase, and the increase at the beginning (t_1-t_2) and the end (t_5-t_6) of the switching procedure is lower than the maximum increase.
22. (New) A method according to claim 19, wherein the electronic switch element is a transistor switch (S1) with an active phase, and first and second threshold values are specified in such a manner that the first and second threshold values approximately localise the active phase, and the transistor switch is controlled within this active phase with the second, higher increase.

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23. (New) A method according to claim 19, wherein the electronic switch element is a transistor switch with an active phase, and that first and second threshold values are specified in such a manner that a specified maximum power loss for each switching procedure, and a specific maximum electromagnetic interfering radiation level cannot be exceeded.
24. (New) A method according to claim 19, wherein a voltage (U_a) on the load element in relation to a supply voltage (U_{bat}) is recorded as a proportional value, and corresponding voltage values are specified as first and second threshold value, from which point on the load element is controlled according to the specified maximum increases.
25. (New) A method according to claim 24, wherein the first threshold value is between 5% and 30% of the supply voltage (U_{bat}), and the second threshold value is between 70% and 95%.
26. (New) A method according to claim 25, wherein the first threshold value is approx. 15% and the second threshold value is approx. 85%.
27. (New) A method according to claim 19, wherein between the first and second phase, at least one intermediate phase is provided, in which the voltage is raised by an increase value which lies between the maximum increase in the first phase and the maximum increase in the second phase.
28. (New) A method according to claim 27, wherein the switching procedure is completed in three main phases and two intermediate phases, whereby:

in a first main phase (t_1 - t_2) the output voltage is controlled up to a first specified threshold value (e.g. approx. 10%) with a first increase (I_1);

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in a second intermediate phase (t_2 - t_3), the output voltage is controlled up to a second specified threshold value (e.g. approx. 20%) with a second increase (I_1+I_2);

in a second main phase (t_3 - t_4), the output voltage is controlled up to a third specified threshold value (e.g. approx. 80%) with a third increase ($I_1+I_2+I_3$);

in a second intermediate phase (t_4 - t_5), the output voltage is controlled up to a second specified threshold value (e.g. approx. 90%) with the second increase (I_1+I_2); and

in the a main phase (t_5 - t_6), the output voltage is controlled up to the supply voltage with the first increase (I_1), wherein the third increase ($I_1+I_2+I_3$) is larger than the second increase (I_1+I_2), and that is in turn larger than the first increase (I_1).

29. (New) A method according to claim 19, wherein the voltage on the control input (U_g) of the switching device is also monitored (COND 1), and in a first and third phase, a current value ($I_1+I_2+I_3$) is fed in which is above the first current value (I_1) for as long as the current on the control input is either lower (t_0 - t_1) than a specified threshold voltage (V_T) or higher (t_6 - t_7) than the difference between the supply voltage (U_{bat}) and the threshold voltage (V_T).

30. (New) A switching arrangement for triggering a load element, the arrangement comprising:

an electronic switching element (S_1) in a load circuit;

a control unit connected to an input of the switching; and

a load element connected to a load output of the switching element, wherein the control unit records a switching condition of the switch element, and in dependence on a triggering signal and the switching condition, controls the switch element in such a manner that a voltage on the load output is controlled in three phases with a

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restricted increase, wherein an increase in the second, middle phase is lower in value than an increase in the other phases.

31. (New) An arrangement according to claim 30, wherein the input of the switch element is current-controlled, wherein depending on a triggering signal and a switching condition on the control input in the first phase, a first current value (I_1), in the second phase, a second, higher current value ($I_1+I_2+I_3$), and in the third phase, a third current value (I_1) is fed in, which is lower than the second current value.
32. (New) An arrangement according to claim 31, wherein at least two current source circuits (I_1 , I_2 , I_3) are provided on the switch input, which in turn are controlled depending on the switching condition of the switch element in the load circuit.
33. (New) An arrangement according to claim 30, wherein a smoothing element, such as an RC low pass, is connected to the input of the switching device, and the smoothing element rounds the edges when switching over between the current values.
34. (New) An arrangement according to claim 30, wherein the voltage on the input (U_g) of the switching device is monitored (COND 1) and in the first and third phases, a current value above the first current value is fed in as long as the voltage on the control input is either lower (t_0-t_1) than a specified threshold voltage (V_T), or higher (t_6-t_7) than the difference between the supply voltage (U_{bat}) and the threshold voltage (V_T).
35. (New) An arrangement according to claim 30, wherein the arrangement is provided in a motor vehicle for modulated triggering of an essentially ohmic load element.

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36. (New) An arrangement according to claim 30, wherein the arrangement is provided in a motor vehicle for pulse-width modulated triggering of lamps in continuous lighting mode within a frequency range above 100 Hertz.